

What is claimed is:

1.A tracking resistant resin composition comprising:

100 weight parts of at least one resin selected from the
5 group consisting of polyolefines and copolymers of different
olefins;

0.1 to 1.5 weight parts of a carbon black;

0.1 to 2 weight parts of a UV and light stabilizer; and

0.1 to 2 weight parts of an antioxidant.

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2. The tracking resistant resin composition according to
claim 1, in which the polyolefine resin is at least one of LDPE
(low density polyethylene), MDPE (medium density polyethylene)
and HDPE (high density polyethylene) which has a melt index of
15 0.1 to 1.0g/10min.

3. The tracking resistant resin composition according to
claim 1, in which the olefine copolymer comprises at least one of
ethylene vinyl acetate, ethylene ethyl acrylate and ethylene
20 butyl acrylate of ethylene-alpha-copolymer.

4. The tracking resistant resin composition according to claim 1, in which the carbon black is 0.3 to 1.0 weight parts.

5. The tracking resistant resin composition according to claim 1, in which the carbon black has an average particle size of 60 nm or less, a surface area of 80 to 200 m²/g and a dibutyl acrylate adsorption of 100 to 200 cm³/100g.

6. The tracking resistant resin composition according to claim 5, in which the carbon black has an average particle size of 30nm or less, a surface area of 100 to 170 m²/g and a dibutyl acrylate adsorption of 100 to 150 cm³/100g.

7. The tracking resistant resin composition according to claim 1, in which the carbon black is any one of furnace black, acetylene black and thermal black.

8. The tracking resistant resin composition according to claim 1, in which the UV and light stabilizer is at least one selected from the group consisting of piperidines, benzophenones and benzotriazoles.

9. The tracking resistant resin composition according to claim 8, in which the benzophenones UV and light stabilizer is a compound of the 2,4-dihydroxy phenone structure which is substituted with a C₁-C₈ alkyl group, a C₆-C₁₂ cycloalkyl group or
5 a C₁-C₈ alkoxy group.

10. The tracking resistant resin composition according to claim 8, in which the benzotriazoles UV and light stabilizer is a compound of the 2-(2'-hydroxyphenyl)-benzotriazole structure
10 which is substituted with a chlorine at 5 position and an alkyl group at 3' and 5' positions.

11. The tracking resistant resin composition according to claim 8, in which the piperidines is a 2,2,6,6-methyl piperidine.
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12. The tracking resistant resin composition according to claim 11, in which the 2,2,6,6-methyl piperidine is at least one selected from the group consisting of 2,2,6,6-pentamethyl-4-piperidinyl, N-butyl-2,2,6,6-tetramethyl-4-piperidine amine,
20 hexanediyl(2,2,6,6-tetramethyl-4-piperidinyl)imino and 4-hydroxy-2,2,6,6-tetramethyl-1-piperidine.

13. The tracking resistant resin composition according to claim 8, in which the UV and light stabilizer is any one of methyl piperidines and benzophenones or a mixture thereof.

5 14. The tracking resistant resin composition according to claim 8, in which the UV and light stabilizer is any one of 2,2,6,6-methyl piperidines and 2-(2'-hydroxy phenyl)-benzotriozoles or a mixture thereof.

10 15. The tracking resistant resin composition according to claim 8, in which the UV and light stabilizer is at least one of N-C₁-C₈ alkyl- substituted derivatives of a 2,2,6,6-tetramethyl-1-piperidines.

15 16. The tracking resistant resin composition according to claim 1, in which the UV and light stabilizer is 0.3 to 1 weight parts relative to 100 weight parts of the resin.

20 17. The tracking resistant resin composition according to claim 1, in which the antioxidant is at least one selected from the group consisting of hindered phenol antioxidants, phosphite antioxidants and sulfur-containing antioxidants.

18. The tracking resistant resin composition according to claim 17, in which the hindered phenol antioxidant is at least one selected from the group consisting of tetrakis(3-(3,5-di-tert-butyl-4-hydroxy phenyl)propionate), thiodiethylene-bis(3-
5 3,5-di-tert-butyl-4-hydroxy phenyl)propionate and 6,6'-di-tert-butyl-2,2'-thiodi-p-cresol.

19. The tracking resistant resin composition according to claim 17, in which the phosphite antioxidant is any one of
10 tris(2,4-di-tert-butyl phenyl)phosphite and di-tert-butyl phenyl phosphonite or a mixture thereof.

20. The tracking resistant resin composition according to claim 17, in which the sulfur-containing antioxidant is any one
15 of dilauryl thiopropionate and dimyristyl thiodipropionate or a mixture thereof.

21. The tracking resistant resin composition according to claim 1, in which the antioxidant is 0.2 to 1 weight parts
20 relative to 100 weight parts of the resin.

22. A cable having a dielectric protective layer comprising the tracking resistant resin composition of any one of claims 1 to 21.